

45. A List of the Snakes of East Africa, North of the Zambesi and South of the Soudan and Somaliland, and of Nyassaland. By G. A. BOULENGER, F.R.S., F.Z.S.*

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(Text-figures 1-3.)

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This list is the third of a series published in these 'Proceedings' †, and the reader is referred to the first for an explanation of the method and scope of this aid to the identification of African Snakes. It is convenient to reproduce here text-figures 1 & 2 from the first paper, as a glossary to the terms used in the keys to the genera and species.

Synopsis of the Families.

- I. Worm-like, with small inferior mouth, eyes hidden or visible under the head-shields, and body covered with uniform imbricate scales above and beneath.
- 18 scales or more round middle of body ; ocular not bordering the mouth ; tail not or but little longer than broad TYPHLOPIDÆ.
- 14 scales round middle of body GLAUCONIIDÆ.
- II. Mouth large, eyes exposed ; body with enlarged shields beneath (except in the marine genus *Hydrus*).
- Ventral shields much narrower than the body ; supraocular, if distinct, broken up into two or more shields BOIDÆ.
- Ventral shields at least nearly as broad as the body ; supraocular single ; poison-fangs, if present, not in a very large sheath ... COLUBRIDÆ.
- Ventral shields at least nearly as broad as the body ; large poison-fangs in a very large sheath below the eye VIPERIDÆ.

Family TYPHLOPIDÆ.

A single genus.

I. TYPHLOPS.

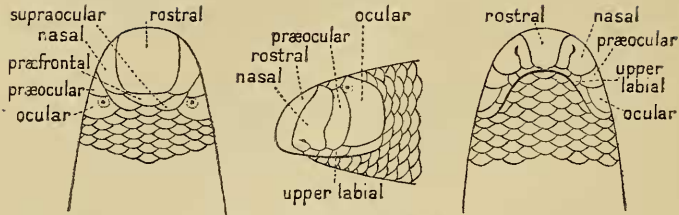
Schneid. Hist. Amph. ii. p. 339 ; Bouleng. Cat. Sn. i. p. 7.

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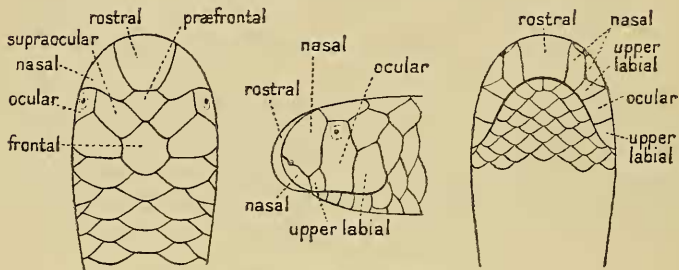
† 1. "A List of the Snakes of the Belgian and Portuguese Congo, Northern Rhodesia, and Angola," P. Z. S. 1915, p. 193. 2. "A List of the Snakes of Madagascar, Comoro, Mascarenes, and Seychelles," t. c. p. 369.

Text-figure 1.

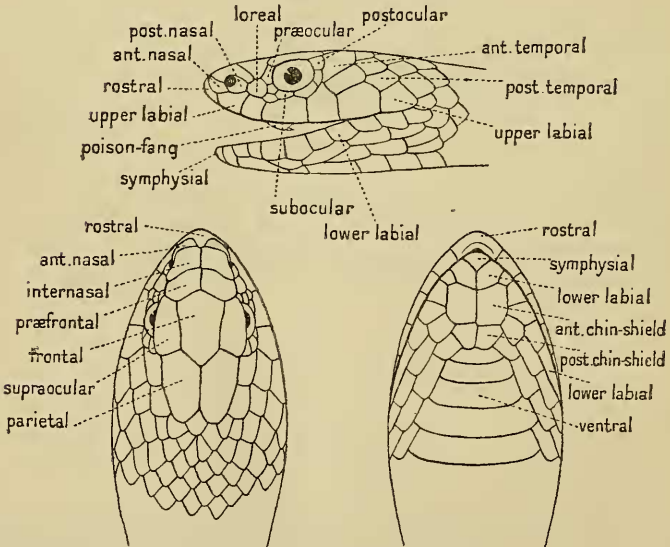
(From P. Z. S. 1915, p. 191.)



TYPHLOPS PUNCTATUS.



GLAUCONIA EMINI.

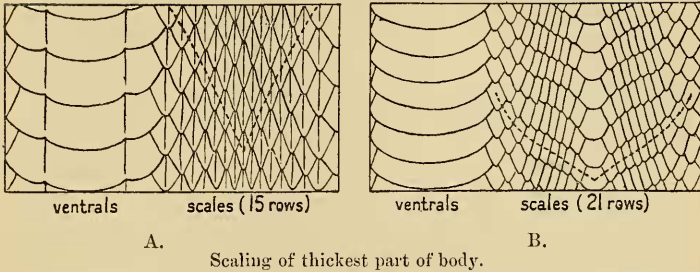


CAUSUS RHOMBEATUS.

J. GREEN DEL.

Text-figure 2.

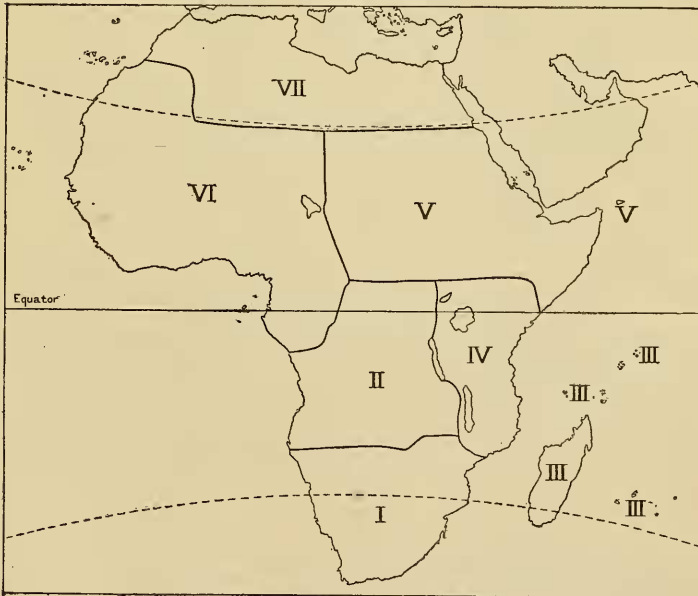
(From P. Z. S. 1915, p. 195.)



- A. *Gastropyxis smaragdina*, with keeled scales and bicarinate ventral shields.
- B. *Dipsadomorphus blandinii*, with oblique scales and enlarged vertebrals.

The following map (text-fig. 3) shows the boundaries of the divisions adopted in this series of papers. Divisions II and III have been dealt with, the present paper treating of Division IV:—

Text-figure 3.



Division of Africa into seven districts.

Synopsis of the Species.

- I. No præocular; no subocular; ocular in contact with two upper labials; snout with sharp horizontal edge; eyes hidden; 22 scales round middle of body, the diameter of which is 80 times in total length..... *T. gracilis*.
- II. A præocular; no subocular; ocular in contact with two or three upper labials.
- A. Nostrils lateral; snout rounded; eyes distinct.
- 20 scales round middle of body, the diameter of which is 35 to 50 times in total length..... *T. braminus*.
- 24 scales round middle of body, the diameter of which is 50 to 60 times in total length..... *T. platyrhynchus*.
- B. Nostrils inferior; snout rounded or with obtusely angular horizontal edge.
1. Eyes hidden.
- 22 or 24 scales round middle of body, the diameter of which is 40 to 50 times in total length..... *T. obtusus*.
- 26 scales round middle of body, the diameter of which is 25 times in total length..... *T. tornieri*.
- 34 scales round middle of body, the diameter of which is 23 times in total length..... *T. mandensis*.
2. Eyes distinct.
- a. A small shield separating the præocular from the upper labials; 28 scales round middle of body, the diameter of which is 50 times in total length..... *T. gierræ*.
- b. Præocular in contact with upper labials.
- Nasal completely divided: 24 scales round middle of body, the diameter of which is 30 times in total length..... *T. mossambicus*.
- Nasal incompletely divided, the cleft not quite reaching the rostral; 24 scales round middle of body, the diameter of which is 37 or 38 times in total length..... *T. tettensis*.
- Nasal incompletely divided, the cleft not reaching the rostral; 26 to 30 scales round middle of body, the diameter of which is 24 to 30 times in total length..... *T. punctatus*.
- C. Nostrils inferior; snout with sharply angular horizontal edge; eyes distinct.
- Lower surface of rostral broader than long; 38 to 44 scales round middle of body, the diameter of which is 25 to 32 times in total length..... *T. schlegelii*.
- Lower surface of rostral broader than long; 34 to 40 scales round middle of body, the diameter of which is 42 to 46 times in total length..... *T. dinga*.
- Lower surface of rostral as long as broad; 30 to 38 scales round middle of body, the diameter of which is 25 to 37 times in total length..... *T. mucruso*.
- III. A præocular; ocular small, separated from the upper labials by a larger subocular; diameter of body 50 to 63 times in total length.
- Snout rounded; eyes hidden; 22 scales round middle of body. *T. pallidus*.
- Snout with sharp horizontal edge; eyes hidden; 18 scales round middle of body..... *T. lumbriciformis*.
- Snout with sharp horizontal edge; eyes distinct; 24 scales round middle of body..... *T. uniteniatus*.

1. *TYPHLOPS GRACILIS* Sternf. Mitth. Zool. Mus. Berl. v. 1910, p. 70.

Urungu, German East Africa.

2. *TYPHLOPS BRAMINUS* Daud.

Bouleng. Cat. Sn. i. p. 16.

Southern Asia: islands of the Indian Ocean (including Mozambique island); South Africa; Lagos; Mexico.—Distribution probably ascribable to transport by human agency.

3. TYPHLOPS PLATYRRHYNCHUS Sternf. Mitth. Zool. Mus. Berl. v. 1910, p. 69.

Tanga, German East Africa.

4. TYPHLOPS OBTUSUS Peters, Mon. Berl. Ac. 1865, p. 260, pl. —, fig. 2; Bouleng. t. c. p. 38.

Nyassaland.

5. TYPHLOPS TORNIERI Sternf. Mitth. Zool. Mus. Berl. v. 1910, p. 69.

Kilimanjaro.

6. TYPHLOPS MANDENSIS Stejneger. Proc. U.S. Nat. Mus. xvi. 1894, p. 725; Bouleng. Cat. Sn. iii. p. 587.

Island of Manda, north of Lamu.

7. TYPHLOPS GIERRE Mocquard, Bull. Mus. Paris, 1897, p. 122.

Tanga, German East Africa.

8. TYPHLOPS MOSSAMBICUS.

Onychocephalus mossambicus Peters, Mon. Berl. Ac. 1854, p. 621.

Typhlops mossambicus Peters, Reise Mossamb. iii. p. 93, pl. xv. fig. 2; Bouleng. Cat. Sn. i. p. 41.

Portuguese East Africa and Zululand.

9. TYPHLOPS TETTENSIS.

Onychocephalus tettensis Peters, Mon. Berl. Ac. 1860, p. 80.

Typhlops tettensis Peters, Reise Mossamb. iii. p. 92, pl. xv. fig. 1; Bouleng. Cat. Sn. i. p. 41.

Portuguese East Africa.

10. TYPHLOPS PUNCTATUS Leach.

Bouleng. Cat. Sn. i. p. 42.

Typhlops bocagii Bethencourt Ferreira, Journ. Sc. Lisb. (2) vii. 1904, p. 114.

Typhlops adolphi Sternf. Mitth. Zool. Mus. Berl. v. 1910, p. 70. Tropical Africa.

11. TYPHLOPS SCHLEGELII Bianconi, Spec. Zool. Mossamb. p. 13, pl. iii. fig. 2; Bouleng. Cat. Sn. i. p. 44.

East and Central Africa to Portuguese East Africa and Southern Rhodesia.

12. TYPHLOPS DINGA.

Onychocephalus dinga Peters, Mon. Berl. Ac. 1854, p. 620.

Typhlops dinga Peters, Reise Mossamb. iii. p. 98, pl. xiv. fig. 1 & pl. xiv. A, fig. 3; Bouleng. Cat. Sn. i. p. 45.

Portuguese East Africa.

13. TYPHLOPS MUCRUSO.

Onychocephalus mucruso Peters, Mon. Berl. Ac. 1854, p. 621.

Typhlops mucruso Peters, Reise Mossamb. iii. p. 95, pl. xiii. fig. 3; Bouleng. Cat. Sn. i. p. 46.

Typhlops humbo Bocage, Journ. Sc. Lisb. xi. 1886, p. 171; Bouleng. l. c.

Typhlops hottentotus Bocage, op. cit. (2) iii. 1893, p. 117.

Typhlops latirostris Sternf. Mitth. Zool. Mus. Berl. v. 1910, p. 70.

Tropical Africa south of the Equator.

14. TYPHLOPS PALLIDUS.

Letheobia pallida Cope, Proc. Ac. Philad. 1868, p. 322.

Typhlops pallidus Bouleng. Cat. Sn. i. p. 54.

Zanzibar and Pemba Id.

15. TYPHLOPS LUMBRICIFORMIS.

Onychocephalus (Letheobia) lumbriciformis Peters, Mon. Berl. Ac. 1874, p. 377.

Typhlops lumbriciformis Bouleng. Cat. Sn. i. p. 54.

Typhlops kleebergi Werner, Zool. Anz. xxvii. 1904, p. 664.

East and Central Africa.

16. TYPHLOPS UNITENIATUS Peters, Mon. Berl. Ac. 1878, p. 205, pl. ii. fig. 5; Bouleng. Cat. Sn. i. p. 55, and Ann. Mus. Genova (3) v. 1892, p. 331 (var. *ateniatus*).

Somaliland and British East Africa.

Family GLAUCONIIDÆ.

A single genus.

1. GLAUCONIA.

Gray, Cat. Liz. p. 139; Bouleng. Cat. Sn. i. p. 59.

Synopsis of the Species.

- I. Ocular bordering the mouth; tail at least three times as long as broad.
- A. Rostral more than half width of head, extending backwards beyond level of eyes.
- Diameter of body 50 to 65 times in total length..... *G. distanti*.
 Diameter of body 80 to 87 times in total length..... *G. merkeri*.
- B. Rostral one third to one half width of head, not extending backwards beyond level of eyes.
1. Rostral not in contact with supraocular.
- Diameter of body 50 to 55 times in total length..... *G. emini*.
 Diameter of body 30 times in total length *G. bouleengeri*.
 Diameter of body 70 times in total length *G. longicauda*.
2. Rostral in contact with supraocular; diameter of body 47 to 60 times in total length..... *G. conjuncta*.
- II. Ocular not bordering the mouth; tail hardly twice as long as broad; diameter of body 40 times in total length *G. braueri*.

1. *GLAUCONIA DISTANTI* Bouleng. in Distant, Natur. Transvaal, p. 175, fig., and Cat. Sn. i. p. 62.
Nyassaland, S. Rhodesia, Transvaal.

2. *GLAUCONIA MERKERI* Werner, Jahresh. Ver. Nat. Württemb. lxxv. 1909, p. 61.
Moschi, German E. Africa.

3. *GLAUCONIA EMINI* Bouleng. Ann. & Mag. N. H. (6) vi. 1890, p. 91, and Cat. Sn. i. p. 64, pl. iii. fig. 8.
East and Central Africa.

4. *GLAUCONIA BOULENGERI* Boettg. in Voeltzkoff, Reise Ostafri. iii. p. 354.
Witu, German E. Africa.

5. *GLAUCONIA LONGICAUDA*.
Stenostoma longicauda Peters, Mon. Berl. Ac. 1854, p. 621, and Reise Mossamb. iii. p. 102, pl. xv. fig. 5.
Glauconia longicauda Bouleng. Cat. Sn. i. p. 66.
Portuguese E. Africa and N. Rhodesia.

6. *GLAUCONIA CONJUNCTA*.
Stenostoma conjunctum Jan, Arch. Zool. Anat. Phys. i. 1861, p. 189, and Icon. Gén. l. 2, pls. v. & vi. fig. 9.
Glauconia conjuncta Bouleng. t. c. p. 67.
South and East Africa.

7. *GLAUCONIA BRAUERI* Sternf. Mitth. Zool. Mus. Berl. v. 1910, p. 70.
Bagamoyo, German E. Africa.

Family BOIDEÆ.

Two genera:—

Upper surface of head with shields; rostral and anterior upper labials deeply pitted; subcaudals in two rows	<i>Python</i> .
Upper surface of head with small scales; tail very short, subcaudal single.....	<i>Eryx</i> .

1. PYTHON.

Daud. Hist. Rept. v. p. 266; Bouleng. Cat. Sn. i. p. 85.

1. PYTHON SEBÆ.

Coluber sebæ Gmel. S. N. i. p. 1118.

Python sebæ Bouleng. t. c. p. 86.

Tropical and South Africa.

2. ERYX.

Daud. Hist. Rept. vii. p. 251 ; Bouleng Cat. Sn. i. p. 122.

1. ERYX THEBAICUS Reuss, Mus. Senckenb. i. 1834, p. 134 ;
Bouleng. t. c. p. 125.

Upper Egypt to German East Africa.

Family COLUBRIDÆ.

Three parallel series:—

No poison-fangs ; all the teeth solid.....	A. Aglypha.
Poison-fangs behind	B. Opisthoglypha.
Poison-fangs in front	C. Proteroglypha.

A. Aglypha.

I. Loreal present (occasionally absent in *Homalosoma*, recognisable by the combination of a single nasal shield, paired subcaudals, and a low number of ventral shields, 113-144).

A. Snout without angular horizontal edge ; internasal and præfrontal paired.

1. Scales in 19 rows or more, not oblique ; body not remarkably slender.

a. Pupil round.

α. A single anterior temporal.

Scales in 19 rows ; anal divided *Tropidonotus*.

Scales in 19-25 rows ; anal entire ; a deep groove on side of head,
above upper labials *Glypholyceus*.

β. Two or three superposed anterior temporals.

Scales keeled, in 23 rows ; a deep pit between nasal and
præocular *Bothrophthalmus*.

Scales smooth or very obtusely keeled, in 25 to 31 rows *Pseudaspis*.

Scales smooth, in 21 rows *Coronella*.

b. Pupil vertically elliptic ; scales smooth, in 23 to
33 rows *Boodon*.

2. Scales in 13 to 17 rows, or, if in 19, extremely narrow and oblique.

a. Pupil vertically elliptic ; snout much flattened ; scales in 15 or 17 rows.

Scales smooth *Lycophidium*.

Scales keeled, vertebrals bicarinate *Simocephalus*.

b. Pupil round ; body usually very slender (tree-snakes).

α. Scales in 13 or 15 rows, smooth.

Subcaudals not keeled *Chlorophis*.

Subcaudals keeled and with a notch corresponding to the keel,
same as on the ventrals *Philothamnus*.

β. Scales in 15 rows, keeled.

Subcaudals keeled and notched *Gastropyxis*.

Subcaudals not keeled ; two superposed anterior temporals *Hapsidophrys*.

γ. Scales in 17 or 19 rows, very narrow, keeled ; eye very large.

Lateral scales shorter than dorsals *Thrasops*.

Lateral scales as long as dorsals *Rhamnophis*.

c. Pupil round ; nostril in a single or semidivided nasal ; scales not oblique,
short and smooth, in 15 or 17 rows.

Nostril directed upwards, nasal divided or semidivided ; two
superposed anterior temporals ; ventrals 145 or more *Grayia*.

Nostril lateral, nasal entire ; a single anterior temporal ; ventrals
less than 145 *Homalosoma*.

- B. Snout with angular horizontal edge, or internasal and præfrontal single.
 Eye in contact with labials; internasal and præfrontal single;
 scales in 15 or 17 rows; ventrals less than 170 *Prosymna*.
 Suboculars separate the eye from the labials; scales in 19 to 25
 rows; ventrals more than 170 *Scaphiophis*.
 II. No loreal, nasal in contact with præocular; pupil vertically
 elliptic; scales strongly keeled, some of the laterals very
 oblique *Dasypletis*.

1. TROPIDONOTUS.

Kuhl, Bull. Sc. Nat. ii. 1824, p. 81; Bouleng. Cat. Sn. i.
 p. 192.

1. TROPIDONOTUS OLIVACEUS.

Coronella olivacea Peters, Mon. Berl. Ac. 1854, p. 622.

Tropidonotus olivaceus Bouleng. t. c. p. 227.

Grayia giardi Dollo, Bull. Mus. Belg. iv. 1886, p. 158, fig.;
 Bouleng. op. cit. ii. p. 288.

Tropical Africa, from the Soudan to Angola, and Southern
 Rhodesia.

2. GLYPHOLYCUS.

Günth. P. Z. S. 1893, p. 629; Bouleng. Cat. Sn. iii. p. 615.

Two species:—

Scales in 23 or 25 rows; nasal semidivided *G. bicolor*
 Scales in 19 rows; nasal divided *G. whytii*.

1. GLYPHOLYCUS BICOLOR Günth. l. c., fig.; Bouleng. l. c.
 Lake Tanganyika.

2. GLYPHOLYCUS WHYTHI Bouleng. P. Z. S. 1897, p. 802,
 pl. xlv. fig. 2.
 Nyassaland.

3. BOTHROPTHALMUS.

Peters, Mon. Berl. Ac. 1863, p. 287; Bouleng. Cat. Sn. i.
 p. 324.

1. BOTHROPTHALMUS LINEATUS.

Elaphis (Bothrophthalmus) lineatus Peters, l. c.

Bothrophthalmus lineatus Bouleng. l. c.

From the Gold Coast and Uganda to the Congo.

4. BOODON.

Dum. & Bibr. Mém. Ac. Sc. xxiii. 1853, p. 460; Bouleng. Cat.
 Sn. i. p. 327.

Synopsis of the Species.

- I. Subcaudals in two rows.
 Præocular not extending to upper surface of head; scales in 23 or
 25 rows; ventrals 175-195; no light lines on side of head *B. infernalis*.

- Præocular extending to upper surface of head; scales in 23 (rarely 25) rows; ventrals 186-220; belly blackish brown with the middle line yellowish *B. virgatus*.
 Præocular extending to upper surface of head; scales in 25 to 33 rows; ventrals 188-249 *B. lineatus*.
 II. Subcaudals single; scales in 25 to 29 rows: ventrals 183-221... *B. olivaceus*.

1. BOODON INFERNALIS Günth. Cat. Col. Sn. p. 199; Bouleng. Cat. Sn. i. p. 330, pl. xxi. fig. 1.

German East Africa and South Africa.

2. BOODON VIRGATUS.

Cælopeltis virgata Hallow. Proc. Ac. Philad. 1854, p. 98.

Boodon virgatus Bouleng. t. c. p. 331.

German East Africa (*vide* Sternfeld); West Africa, from the Gold Coast to Calabar.

3. BOODON LINEATUS Dum. & Bibr. Erp. Gén. vii. p. 363; Bouleng. t. c. p. 332.

Tropical and South Africa and South Arabia.

4. BOODON OLIVACEUS.

Holuropholis olivaceus A. Dum. Rev. et Mag. Zool. 1856, p. 466.

Boodon olivaceus Bouleng. t. c. p. 335.

West and Central Africa, from Nigeria and Uganda to the Congo.

5. LYCOPHIDIUM.

Dum. & Bibr. Mém. Ac. Sc. xxiii. 1853, p. 462; Bouleng. Cat. Sn. i. p. 336.

Synopsis of the Species.

I. Scales in 15 rows; ventrals 153-165; subcaudals 23-32 ... *L. meleagris*.

II. Scales in 17 rows.

A. Parietal shields longer than the distance between frontal and end of snout.

Diameter of eye hardly equal to its distance from mouth; ventrals 140-150; subcaudals 18-28 *L. acutirostre*.

Diameter of eye considerably greater than its distance from mouth; ventrals 146-156; subcaudals 20-30 *L. semiannulis*.

Diameter of eye considerably greater than its distance from mouth; ventrals 163-208; subcaudals 24-47 *L. capense*.

Diameter of eye not greater than its distance from mouth; ventrals 164-189; subcaudals 29-33 *L. jacksonii*.

B. Parietal shields not longer than distance between frontal and end of snout; ventrals 188-219; subcaudals 34-55 *L. semicinctum*.

1. LYCOPHIDIUM MELEAGRIS Bouleng. Cat. Sn. i. p. 337, pl. xxi. fig. 2.

German East Africa (*vide* Sternfeld); Angola.

2. LYCOPHIDIUM ACUTIROSTRE Günth. Ann. & Mag. N. H. (4) i. 1868, p. 427, pl. xix. fig. D; Bouleng. t. c. p. 338.

Zanzibar.

3. *LYCOPHIDIUM SEMIANNULIS* Peters, Mon. Berl. Ac. 1854, p. 622, and Reise Mossamb. iii. p. 135, pl. xvi. fig. 2; Bouleng. t. c. p. 339.

Portuguese East Africa.

4. *LYCOPHIDIUM CAPENSE*.

Lycodon capensis A. Smith, S. Afr. Quart. Journ. (1) no. 5, 1831, p. 18.

Lycophidium capense Bouleng. t. c. p. 339.

Tropical and South Africa.

5. *LYCOPHIDIUM JACKSONII* Bouleng. Cat. Sn. i. p. 340, pl. xxi. fig. 3.

East Africa (Kilimanjaro, Lamu).

6. *LYCOPHIDIUM SEMICINCTUM* Dum. & Bibr. Erp. Gén. vii. p. 414; Bouleng. t. c. p. 341.

German East Africa (*vide* Sternfeld); Senegambia, French Guinea, Northern Nigeria.

6. *SIMOCEPHALUS*.

Günth. Cat. Col. Sn. p. 194; Bouleng. Cat. Sn. i. p. 344.

Synopsis of the Species.

I. Ventrals 203-255; subcaudals 45-70.	
Two postoculars; a yellow vertebral line	<i>S. capensis</i> .
Three postoculars; a single loreal	<i>S. chanleri</i> .
Three postoculars; two superposed loreals	<i>S. unicolor</i> .
II. Ventrals 239-262; subcaudals 75-124	<i>S. poensis</i> .
III. Ventrals 171-178; subcaudals 62-63	<i>S. nyassæ</i> .

1. *SIMOCEPHALUS CAPENSIS*.

Heterolepis capensis A. Smith, Ill. Zool. S. Afr., Rept. pl. lv.

Simocephalus capensis Bouleng. t. c. p. 345.

German and Portuguese East Africa, Nyassaland, Gaboon, Natal.

2. *SIMOCEPHALUS CHANLERI* Stejneger. Proc. U.S. Nat. Mus. xvi. 1894, p. 726; Bouleng. op. cit. iii. p. 617.

Island of Manda, N. of Lamu.

3. *SIMOCEPHALUS UNICOLOR* Bouleng. Ann. & Mag. N. H. (8) v. 1910, p. 512.

Kenya District, Brit. E. Africa.

4. *SIMOCEPHALUS POENSIS*.

Heterolepis poensis A. Smith, Ill. Zool. S. Afr., Rept.

Simocephalus poensis Bouleng. op. cit. i. p. 346.

Uganda; Sierra Leone to Congo.

5. SIMOCEPHALUS NYASSÆ Günth. Ann. & Mag. N. H. (6) i. 1888, p. 328; Bouleng. t. c. p. 347, pl. xxiii. fig. 2.
Gonionotophis degrijsii Werner, Zool. Anz. xxx. 1906, p. 53.
 East Africa, Nyassaland, Natal.

7. PSEUDASPIS.

- Cope, Proc. Ac. Philad. 1864, p. 168; Bouleng. Cat. Sn. i. p. 373.

1. PSEUDASPIS CANA.

- Coluber canus* Linn. Mus. Ad. Frid. i. p. 31, pl. xi. fig. 1.
Pseudaspis cana Bouleng. l. c.
 East and South Africa, Nyassaland, Angola.

8. CHLOROPHIS.

- Hallow. Proc. Ac. Philad. 1857, p. 52; Bouleng. Cat. Sn. ii. p. 91.

Synopsis of the Species.

- I. No trace of ventral keels; ventrals 147-190.
 A. Scales in 15 rows.
 9 upper labials, 4th, 5th, and 6th entering the eye; subcaudals 103-123..... *C. emini*.
 7 upper labials, 3rd, 4th, and 5th entering the eye; subcaudals 114..... *C. schubotzi*.
 8 upper labials, 4th and 5th entering the eye; subcaudals 82-105..... *C. hoplogaster*.
 B. Scales in 13 rows; 9 upper labials, 5th and 6th entering the eye; subcaudals 75..... *C. macrops*.
 II. Ventrals with a more or less distinct lateral keel.
 7 or 8 upper labials, 4th and 5th (rarely 3rd and 4th) entering the eye; ventrals 148-169; subcaudals 71-114..... *C. neglectus*.
 8 or 9 upper labials, 4th, 5th, and 6th (rarely 3rd, 4th, and 5th) entering the eye; ventrals 175-190; subcaudals 115-135; body very slender anteriorly..... *C. heterolepidotus*.
 9 upper labials, 4th, 5th, and 6th entering the eye; præocular in contact with or narrowly separated from the frontal; ventrals 150-182; subcaudals 90-133..... *C. irregularis*.

1. CHLOROPHIS EMINI.

- Ahetulla emini* Günth. Ann. & Mag. N. H. (6) i. 1888, p. 325.
Chlorophis emini Bouleng. t. c. p. 92, pl. v. fig. 1.
 Egyptian Soudan to Uganda and Ruwenzori.

2. CHLOROPHIS SCHUBOTZI Sternf. in Schubotz, Wiss. Ergebn. Deutsch. Z.-Afr. Exped. iv. Zool. ii. p. 269, fig. (1912).
 Near Bukoba, German E. Africa.

3. CHLOROPHIS HOPLOGASTER.

- Ahetulla hoplogaster* Günth. Ann. & Mag. N. H. (3) xi. 1863, p. 284.
Chlorophis hoplogaster Bouleng. t. c. p. 93.
 Central, East, and South Africa.

4. CHLOROPHIS MACROPS.

Oligolepis macrops Bouleng. op. cit. iii. p. 644.

Chlorophis macrops Sternf. Sitzb. Ges. Nat. Fr. Berl. 1908,
p. 95.

German East Africa.

5. CHLOROPHIS NEGLECTUS.

Philothamnus neglectus Peters, Mon. Berl. Ac. 1866, p. 890,
and Reise Mossamb. iii. p. 130, pl. xix. A, fig. 2.

Chlorophis neglectus Bouleng. op. cit. ii. p. 94.

East and Central Africa, S. Rhodesia.

6. CHLOROPHIS HETEROLEPIDOTUS.

Ahetulla heterolepidota Günth. Ann. & Mag. N. H. (3) xi. 1863,
p. 286.

Chlorophis heterolepidotus Bouleng. t. c. p. 95.

Chlorophis gracilis Sternf. Mitth. Zool. Mus. Berl. v. 1910,
p. 64.

Tropical Africa.

7. CHLOROPHIS IRREGULARIS.

Coluber irregularis Leach, in Bowdich, Miss. Ashantee,
p. 494.

Chlorophis irregularis Bouleng. t. c. p. 96.

Senegambia and Uganda to Damaraland and S. Rhodesia.

9. PHILOTHAMNUS.

A. Smith, Ill. Zool. S. Afr., Rept.; Bouleng. Cat. Sn. ii. p. 98.

1. PHILOTHAMNUS SEMIVARIEGATUS A. Smith, t. c. pls. lix., lx.,
& lxiv. fig. 1; Bouleng. t. c. p. 99.

Tropical and South Africa.

10. GASTROPYXIS.

Cope, Proc. Ac. Philad. 1860, p. 556; Bouleng. Cat. Sn. ii.
p. 102.

Two species :—

Temporals 1+2; scales strongly keeled	<i>G. smaragdina.</i>
Temporals 2+2; scales feebly keeled	<i>G. orientalis.</i>

1. GASTROPYXIS SMARAGDINA.

Dendrophis smaragdina Schleg. Phys. Serp. ii. p. 237.

Gastropyxis smaragdina Bouleng. t. c. p. 103.

Tropical Africa, from Sierra Leone and Uganda to the Congo
and Northern Angola.

2. *GASTROPYXIS ORIENTALIS* Werner, Jahresh. Ver. Nat. Württemb. lxxv. 1909, p. 55.

German East Africa.

11. HAPSIDOPHYRYS.

Fischer, Abh. Nat. Ver. Hamb. iii. 1856, p. 110; Bouleng. Cat. Sn. ii. p. 103.

1. *HAPSIDOPHYRYS LINEATA* Fischer, t. c. p. 111, pl. ii. fig. 5; Bouleng. t. c. p. 104.

From the Gold Coast to the Congo, eastwards to Uganda.

12. THRASOPS.

Hallow. Proc. Ac. Philad. 1857, p. 67; Bouleng. Cat. Sn. ii. p. 104.

1. *THRASOPS ROTHSCHILDII* Mocquard, Bull. Mus. Paris, 1905, p. 286.

British East Africa.

13. RHAMNOPHIS.

Günth. Ann. & Mag. N. H. (3) ix. 1862, p. 129; Bouleng. Cat. Sn. iii. p. 632.

1. *RHAMNOPHIS JACKSONII*.

Thrasops jacksonii Günth. Ann. & Mag. N. H. (6) xv. 1895, p. 528; Bouleng. l. c.

Uganda, French Guinea, Gold Coast, Kasai.

14. CORONELLA.

Laur. Syn. Rept. p. 84; Bouleng. Cat. Sn. ii. p. 188.

Two species:—

Rostral much broader than deep	<i>C. semiornata</i> .
Rostral scarcely broader than deep	<i>C. scheffleri</i> .

1. *CORONELLA SEMIORNATA* Peters, Mon. Berl. Ac. 1854, p. 622, and Reise Mossamb. iii. p. 116, pl. xvii. fig. 2; Bouleng. t. c. p. 195.

East Africa, N. Rhodesia.

2. *CORONELLA SCHEFFLERI* Steinf. Sitzb. Ges. Nat. Fr. Berl. 1908, p. 93.

British East Africa.

15. GRAYIA.

Günth. Cat. Col. Sn. p. 50; Bouleng. Cat. Sn. ii. p. 286.

Two species :—

Scales in 17 rows; ventrals 145-168; subcaudals 89-102..... *G. smythii*.
 Scales in 15 rows; ventrals 130-143; subcaudals 100-128..... *G. tholloni*.

1. GRAYIA SMYTHII.

Coluber smythii Leach, in Tuckey's Explor. R. Zaire, App. p. 309.

Grayia smythii Bouleng. t. c. (part.), and P. Z. S. 1899, 1709, p. 948, figs.

West and Central Africa and Uganda.

2. GRAYIA THOLLONI Mocquard, Bull. Soc. Philom. (8) ix. 1897, p. 11; Bouleng. P. Z. S. 1899, p. 951, fig. 1927/

Egyptian Soudan, Uganda, French Congo, Katanga.

16. HOMALOSOMA.

Wagl. Syst. Amph. p. 190; Bouleng. Cat. Sn. ii. p. 273.

1. HOMALOSOMA LUTRIX.

Coluber lutrix Linn. S. N. i. p. 375.

Homalosoma lutrix Bouleng. t. c. p. 274.

Homalosoma shiranum Bouleng. t. c. p. 276.

Homalosoma abyssinicum Bouleng. l. c.

East Africa, Nyassaland, South Africa.

17. PROSYMNA.

Gray, Cat. Sn. p. 80; Bouleng. Cat. Sn. ii. p. 246.

Synopsis of the Species.

Snout with angular horizontal edge; two postoculars; ventrals 131-153..... *P. ambigua*.
 Snout with angular horizontal edge; a single postocular; præfrontal entering the eye; ventrals 151-167..... *P. bocagii*.
 Snout rounded; two postoculars; ventrals 140-143..... *P. variabilis*.

1. PROSYMNA AMBIGUA Bocage, Journ. Sc. Lisb. iv. 1873, p. 218; Bouleng. t. c. p. 248.

Zanzibar Coast to Zululand, N. Rhodesia, Angola.

2. PROSYMNA BOCAGII Bouleng. Ann. & Mag. N. H. (6) xix. 1897, p. 278, fig., and Ann. Mus. Congo, Zool. ii. 1901, p. 9, pl. iii. fig. 4.

Prosymna vasssi Mocquard, Bull. Mus. Paris, 1906, p. 250.

Ubanghi and Mozambique.

3. *PROSYMNA VARIABILIS* Werner, Jahresh. Nat. Ver. Württemb. lxx. 1909, p. 57.

Moschi, German E. Africa.

18. SCAPHIOPHIS.

Peters, Mon. Berl. Ac. 1870, p. 644; Bouleng. Cat. Sn. ii. p. 254.

1. *SCAPHIOPHIS ALBOPUNCTATUS* Peters, t. c. p. 645, pl. i. fig. 4; Bouleng. l. c.

Tropical Africa, from the Soudan to the Congo.

19. DASYPELTIS.

Wagl. Syst. Amph. p. 178; Bouleng. Cat. Sn. ii. p. 353.

1. *DASYPELTIS SCABRA*.

Coluber scaber Linn. Mus. Ad. Frid. p. 36, pl. x. fig. 1.

Dasypeltis scabra Bouleng. t. c. p. 254.

Tropical and South Africa, Egypt, S. Arabia.

B. Opisthoglypha.

- I. Eye moderate or large, with vertically elliptic pupil; head distinct from neck; nostril between two shields; loreal present (sometimes entering the eye).
- A. Nostril directed upwards, between the nasal and the internasal; parietals broken up into small shields; scales smooth or obtusely keeled, in 21 rows *Pythonodipsas*.
- B. Nostril between two nasals; scales smooth or faintly keeled.
1. Two superposed anterior temporals; scales oblique.
- Scales in 19 or 21 rows, vertebrales not enlarged *Tarbophis*.
- Scales in 21 to 25 rows, vertebrales enlarged *Dipsadomorphus*.
2. A single anterior temporal.
- Scales in 19 rows (rarely 17); loreal not entering eye *Leptodira*.
- Scales in 17 rows; loreal entering eye *Chamætortus*.
- II. Eye small, with vertically subelliptic pupil; head distinct from neck; nasal semidivided, with horizontal cleft; scales in 17 or 19 rows *Hemirhagerrhis*.
- III. Eye moderate or large, with round or horizontal pupil; head distinct from neck; loreal present.
- A. Pupil round.
1. Loreal not more than once and a half as long as deep; scales in 17 or 19 rows, not oblique.
- Nostril between two nasals; ventrals 128-139; subcaudals 34-44 *Geodipsas*.
- Nostril in a semidivided nasal; internasals shorter than prefrontals; ventrals 147-187; subcaudals 59-98 *Amplorhinus*.
- Nostril between two nasals and the internasal; subcaudals less than 70 *Trimerorhinus*.
- Nostril between two nasals; rostral very large; subcaudals 90 or more *Rhamphiophis*.
2. Loreal at least once and a half as long as deep; scales more or less oblique.
- Scales in 17 rows; a single anterior temporal *Dromophis*.
- Scales in 11 to 17 rows; one or two middle maxillary teeth much enlarged, fang-like *Psammodipsas*.

3. Loreal not more than once and a half as long as deep ; nostril in an undivided nasal ; scales very narrow, oblique, keeled, in 19 or 21 rows..... *Dispholidus*.
- B. Pupil horizontal ; nostril in an undivided nasal ; scales narrow, oblique, feebly keeled, in 19 rows..... *Thelotornis*.
- IV. Eye small or very small ; head not at all distinct from neck ; no loreal.
- A. Subcaudals in two rows.
1. One or two upper labials in contact with the parietal ; nasal in contact with the rostral.
- Scales in 19 or 21 rows ; no præocular *Calamelaps*.
- Scales in 15 or 17 rows ; no præocular ; rostral very large, concave below ; a pair of internasals and a pair of præfrontals . *Rhinocalamus*.
- Scales in 17 rows ; a large, elongate præocular ; rostral very large, flat below ; præfrontals absent..... *Xenocalamus*.
2. Temporals separate the upper labials from the parietals ; scales in 15 rows.
- Nasal in contact with the rostral ; no præocular..... *Micrelaps*.
- First upper labial in contact with the internasal ; a præocular... *Miodon*.
- B. Subcaudals single ; a præocular ; scales in 15 rows *Aparallactus*.

1. GEODIPSAS.

Bouleng. Cat. Sn. iii. p. 32.

1. GEODIPSAS VAUEROCEGÆ Tornier, Zool. Anz. xxv. 1902, p. 703.

Usambara, German E. Africa.

2. PYTHONODIPSAS.

Günth. Ann. & Mag. N. H. (4) i. 1868, p. 425 ; Bouleng. Cat. Sn. iii. p. 45.

1. PYTHONODIPSAS CARINATA Günth. t. c. p. 426, pl. xix. fig. K ; Bouleng. l. c.

Zambesi, Damaraland.

3. TARBOPHIS.

Fleischm. Dalm. nov. Serp. Gen. p. 17 ; Bouleng. Cat. Sn. iii. p. 47.

Two species:—

Scales in 19 rows ; anal divided *T. semiannulatus*.
 Scales in 21 rows (rarely 19) ; anal entire..... *T. guentheri*.

1. TARBOPHIS SEMIANNULATUS.

Telescopus semiannulatus A. Smith, Ill. Zool. S. Afr., Rept. pl. lxxii.

Tarbophis semiannulatus Bouleng. t. c. p. 51.

Central and East Africa, Angola, S. Africa.

2. TARBOPHIS GUENTHERI Anders. Proc. Zool. Soc. 1895, pl. xxxvi. fig. 3 ; Bouleng. t. c. p. 52.

East Africa, Arabia, Syria.

4. DIPSADOMORPHUS.

Fitzing. in Tschudi, Faun. Per., Herp. p. 55; Bouleng. Cat. Sn. iii. p. 59.

1. DIPSADOMORPHUS BLANDINGII.

Dipsas blandingii Hallow. Proc. Ac. Philad. 1844, p. 170.

Dipsadomorphus blandingii Bouleng. t. c. p. 77.

British East Africa; West Africa, from Senegambia to Congo.

5. LEPTODIRA.

Günth. Cat. Col. Sn. p. 165; Bouleng. Cat. Sn. iii. p. 88.

Synopsis of the Species.

- I. Ventrals less than 200; subcaudals less than 60; 3 to 5 pairs of chin-shields.
 One præocular (rarely divided), separated from the frontal; frontal considerably broader than deep; loreal not or but little longer than deep *L. hotambœia*.
 One præocular, separated from the frontal; rostral little broader than deep; loreal longer than deep *L. degeni*.
 Two præoculars, upper in contact with the frontal *L. tornieri*.
 II. Ventrals more than 200; subcaudals 100 or more; two pairs of chin-shields *L. werneri*.

1. LEPTODIRA HOTAMBŒIA.

Coronella hotambœia Laur. Syn. Rept. p. 85.

Leptodira hotambœia Bouleng. t. c. p. 89.

Tropical and South Africa.

2. LEPTODIRA DEGENI Bouleng. Proc. Zool. Soc. 1906, ii. p. 572, fig.

Leptodira attarensis Werner, Sitzb. Ak. Wien, cxvi. 1907, p. 1875.

Uganda.

3. LEPTODIRA TORNIERI Werner, t. c. p. 1876.

Usambara, German East Africa.

4. LEPTODIRA WERNERI Bouleng. Ann. & Mag. N. H. (6) xix. 1897, p. 281.

Dipsadomorphus reticulatus Werner, Jahresh. Nat. Ver. Württemb. lxv. 1909, p. 55.

Usambara, German East Africa.

6. CHAMÆTORTUS.

Günth. Proc. Zool. Soc. 1864, p. 310; Bouleng. Cat. Sn. iii. p. 98.

1. CHAMÆTORTUS AULICUS Günth. l. c. pl. xxvi. fig. 2; Bouleng. l. c.

German and Portuguese East Africa, Transvaal.

7. HEMIRHAGERRHIS.

Boettg. Zool. Anz. 1893, p. 119; Bouleng. Cat. Sn. iii. p. 119.

1. HEMIRHAGERRHIS KELLERI Boettg. l. c.; Bouleng. l. c.
Somaliland and British East Africa.

8. AMPLORHINUS.

A. Smith, Ill. Zool. S. Afr., Rept.; Bouleng. Cat. Sn. iii. p. 124.

Two species:—

Temporals 1 + 2 or 2 + 2; ventrals 154-187 *A. nototenia*.
Temporals 3 + 4; ventrals 147 *A. tæniatus*.

1. AMPLORHINUS NOTOTENIA.

Coronella nototenia Günth. P. Z. S. 1864, p. 309, pl. xxvi. fig. 1.

Amplorhinus nototenia Bouleng. t. c. p. 125.

Amplorhinus güntneri Mocquard. Bull. Mus. Paris, 1896,
p. 251.

Egyptian Soudan to Nyassaland; Angola.

2. AMPLORHINUS TÆNIATUS Sternf. Mitth. Zool. Mus. Berl. iv.
1908, p. 241.

Lamu Id., British East Africa.

9. TRIMERORHINUS.

A. Smith, Ill. Zool. S. Afr., Rept.; Bouleng. Cat. Sn. iii.
p. 138.

Two species:—

Rostral as deep as broad, its upper portion at least half as long as
its distance from the frontal *T. triteniatus*.
Rostral slightly broader than deep, its upper portion about one
third its distance from the frontal *T. variabilis*.

1. TRIMERORHINUS TRITENIATUS.

Rhagerrhis triteniata Günth. Ann. & Mag. N. H. (4) i. 1868,
p. 423, pl. xix. fig. H.

Trimerorhinus triteniatus Bouleng. t. c. p. 139.

East, Central, and South Africa.

Probably only a variety of the S. African *T. rhombeatus*.

2. TRIMERORHINUS VARIABILIS.

Psamnophylax variabilis Günth. P. Z. S. 1892, p. 557, pl. xxxv.

Trimerorhinus variabilis Bouleng. t. c. p. 140.

Nyassaland.

10. RHAMPHIOPHIS.

Peters, Mon. Berl. Ac. 1854, p. 624; Bouleng. Cat. Sn. iii. p. 144.

Two species:—

Snout rounded; scales in 19 rows; ventrals 230-241; subcaudals 154-160.....	<i>R. rubropunctatus.</i>
Snout somewhat hooked in profile; scales in 17 rows; ventrals 148-192; subcaudals 90-110	<i>R. oxyrhynchus.</i>

1. RHAMPHIOPHIS RUBROPUNCTATUS.

Dipsina rubropunctata Fischer, Jahrb. Hamb. Wiss. Anst. i. 1884, p. 7, pl. i. fig. 3.

Rhamphiophis rubropunctatus Bouleng. t. c. p. 146.

Egyptian Soudan and East Africa.

2. RHAMPHIOPHIS OXYRHYNCHUS.

Psammophis oxyrhynchus Reinh. Vid. Selsk. Skrift. x. 1843, p. 244.

Rhamphiophis oxyrhynchus Bouleng. l. c.

Tropical Africa.

11. DROMOPHIS.

Peters, Mon. Berl. Ac. 1869, p. 447; Bouleng. Cat. Sn. iii. p. 149.

1. DROMOPHIS LINEATUS.

Dryophylax lineatus Dum. & Bibr. Erp. Gén. vii. p. 1124.

Dromophis lineatus Bouleng. l. c.

Coast of Guinea to Egyptian Soudan and Zanzibar Coast; Nyassaland.

12. PSAMMOPHIS.

Boie, Isis, 1827, p. 521; Bouleng. Cat. Sn. iii. p. 152.

Synopsis of the Species.

- I. Scales in 17 rows; 2 or 3 superposed anterior temporals.
- | | |
|---|------------------------|
| Rostral broader than deep; ventrals 177-192; subcaudals 130-178 | <i>P. punctulatus.</i> |
| Rostral broader than deep; ventrals 151-180; subcaudals 100-119 | <i>P. subæniatus.</i> |
| Rostral as deep as broad | <i>P. sibilans.</i> |
- II. Scales in 15 rows; 2 superposed anterior temporals
- III. Scales in 11 rows; a single anterior temporal.....
- | | |
|-------|-----------------------|
| | <i>P. biseriatus.</i> |
| | <i>P. angolensis.</i> |

1. PSAMMOPHIS PUNCTULATUS Dum. & Bibr. Erp. Gén. vii. p. 897; Bouleng. t. c. p. 159.

East Africa, from the Blue Nile to Mozambique; Arabia.

2. PSAMMOPHIS SUBTÆNIATUS.

Psammophis sibilans, var. *subtæniata* Peters, Reise Mossamb. iii. p. 121.

Psammophis subtæniatus Bouleng. t. c. p. 160.

East Africa, from Uganda to Mozambique; Nyassaland.

3. PSAMMOPHIS SIBILANS.

Coluber sibilans Linn. S. N. i. p. 383.

Psammophis sibilans Bouleng. t. c. p. 161.

Psammophis trinasalis Werner, Abh. Bayer. Ak. xxii. 1903, p. 381.

Tropical and South Africa; Egypt.

4. PSAMMOPHIS BISERIATUS Peters, Sitzb. Ges. Nat. Fr. Berl. 1881, p. 88; Bouleng. t. c. p. 168.

Somaliland and British East Africa.

5. PSAMMOPHIS ANGOLENSIS.

Amphiophis angolensis Bocage, Journ. Sc. Lisb. iv. 1872, p. 82.

Psammophis angolensis Bouleng. t. c. p. 170.

East and Central Africa, Angola, Orange River Colony.

13. THELOTORNIS.

A. Smith, Ill. Zool. S. Afr., Rept.; Bouleng. Cat. Sn. iii. p. 184.

1. THELOTORNIS KIRTLANDII.

Leptophis kirtlandii Hallow. Proc. Ac. Philad. 1844, p. 62.

Thelotornis kirtlandii Bouleng. t. c. p. 185.

Tropical and South Africa.

14. DISPHOLIDUS.

Duvernoy, Ann. Sc. Nat. xxvi. 1832, p. 150; Bouleng. Cat. Sn. iii. p. 186.

1. DISPHOLIDUS TYPUS.

Bucephalus typus A. Smith, Zool. Journ. iv. 1829, p. 441.

Dispholidus typus Bouleng. t. c. p. 187.

Tropical and South Africa.

15. CALAMELAPS.

Günth. Ann. & Mag. N. H. (3) xviii. 1866, p. 26; Bouleng. Cat. Sn. iii. p. 245.

Two species:—

Scales in 17 rows *C. unicolor*.
Scales in 19 or 21 rows *C. polytepis*.

1. CALAMELAPS UNICOLOR.

Calamaria unicolor Reinh. Vid. Selsk. Skrift. x. 1843, p. 236, pl. i. figs. 1-3.

Calamelaps unicolor Bouleng. l. c.

Atractaspis hildebrandti Peters, Mon. Berl. Ac. 1877, p. 616; Bouleng. t. c. p. 512.

British East Africa; West Africa.

2. CALAMELAPS POLYLEPIS Bocage, Journ. Sc. Lisb. iv. 1873,

p. 216; Bouleng. t. c. p. 246.

Nyassaland, Angola.

16. RHINOCALAMUS.

Günth. Ann. & Mag. N. H. (6) i. 1888, p. 322; Bouleng. Cat. Sn. iii. p. 247.

Two species:—

Scales in 17 rows; 6 upper labials	<i>R. dimidiatus.</i>
Scales in 15 rows; 7 upper labials	<i>R. meleagris.</i>

1. RHINOCALAMUS DIMIDIATUS Günth. l. c. pl. xix. fig. C; Bouleng. l. c.

East Africa.

2. RHINOCALAMUS MELEAGRIS Sternf. Mitth. Zool. Mus. Berl. iv. 1908, p. 244.

Lamu Id., British East Africa.

17. XENOCALAMUS.

Günth. Ann. & Mag. N. H. (4) i. 1868, p. 414; Bouleng. Cat. Sn. iii. p. 247.

1. XENOCALAMUS BICOLOR Günth. t. c. p. 415, pl. xix. fig. A; Bouleng. t. c. p. 248.

Zambesi.

18. MICRELAPS.

Boettg. Ber. Senck. Ges. 1879-80, p. 136; Bouleng. Cat. Sn. iii. p. 248.

1. MICRELAPS BICOLORATUS Sternf. Sitzb. Ges. Nat. Fr. Berl. 1908, p. 93.

British East Africa.

19. MIODON.

A. Dum. Arch. Mus. x. 1859, p. 206; Bouleng. Cat. Sn. iii. p. 249.

Synopsis of the Species.

Frontal slightly broader than supraocular, $1\frac{1}{3}$ to $1\frac{1}{2}$ as long as broad	<i>M. gabonensis.</i>
Frontal much broader than the supraocular, a little longer than broad; nasal entire	<i>M. christyi.</i>
Frontal much broader than the supraocular, as broad as long ..	<i>M. grauceri.</i>

1. MIODON GABONENSIS.

Elapomorphus gabonensis A. Dum. Rev. et Mag. Zool. (2) viii. 1856, p. 468.

Miodon gabonensis Bouleng. t. c. p. 252.

Old Calabar to Congo; German East Africa.

2. MIODON CHRISTYI Bouleng. Ann. & Mag. N. H. (7) xii. 1903, p. 354.

Uganda.

3. MIODON GRAUERI Sternf. Sitzb. Ges. Nat. Fr. Berl. 1908, p. 94, and Faun. Deutsch. Kolon. iii. 2, p. 34, fig.

Uganda.

Perhaps not specifically distinct from the preceding.

20. APARALLACTUS.

A. Smith, Ill. Zool. S. Afr., Rept. App. p. 15; Bouleng. Cat. Sn. iii. p. 255.

Synopsis of the Species.

I. Symphysial not in contact with the chin-shields.

A. Two postoculars, in contact with a temporal; nasal entire, in contact with the præocular.

Third and fourth upper labials entering the eye *A. jacksonii*.
Second and third upper labials entering the eye *A. werneri*.

B. A single postocular; one upper labial in contact with the parietal.

Nasal entire, not in contact with præocular *A. concolor*.
Nasal divided, in contact with præocular; upper part of rostral about one third its distance from frontal *A. lunulatus*.
Nasal divided, in contact with præocular; upper part of rostral two thirds its distance from frontal *A. christyi*.

II. Symphysial in contact with the chin-shields.

A. Third and fourth upper labials entering the eye.

Nasal divided; subcaudals 49-59 *A. guentheri*.
Nasal entire; subcaudals 37-53 *A. capensis*.

B. Second and third upper labials entering the eye.

Ventrals 110-149 *A. nigriceps*.
Ventrals 157-162 *A. punctatolineatus*.

1. APARALLACTUS JACKSONII.

Uriechis jacksonii Günth. Ann. & Mag. N. H. (6) i. 1888, p. 325, pl. xix. fig. E.

Aparallactus jacksonii Bouleng. t. c. p. 256.

East Africa.

2. APARALLACTUS WERNERI Bouleng. Ann. & Mag. N. H. (6) xvi. 1895, p. 172, and Cat. Sn. iii. p. 257, pl. xi. fig. 1.

Usambara, German East Africa.

3. APARALLACTUS CONCOLOR.

Uriechis concolor Fischer, Jahrb. Hamb. Wiss. Anst. i. 1884, p. 4, pl. i.

Aparallactus concolor Bouleng. Cat. Sn. iii. p. 257.

Uganda and Somaliland.

4. APARALLACTUS LUNULATUS.

Uriechis lunulatus Peters, Mon. Berl. Ac. 1854, p. 623, and Reise Mossamb. iii. p. 113, pl. xviii. fig. 2.

Aparallactus lunulatus Bouleng. t. c. p. 258.

Lake Tanganyika, Nyassaland, Mozambique.

5. APARALLACTUS CHRISTYI Bouleng. Ann. & Mag. N. H. (8) v. 1910, p. 512.

Uganda.

6. APARALLACTUS GUENTHERI Bouleng. Ann. & Mag. N. H. (6) xvi. 1895, p. 172, and t. c. p. 259.

East and Central Africa, S. Rhodesia, Angola.

7. APARALLACTUS CAPENSIS A. Smith, Ill. Zool. S. Afr., Rept. App. p. 16; Bouleng. Cat. Sn. iii. p. 259.

East and South Africa, Katanga.

8. APARALLACTUS NIGRICEPS.

Uriechis nigriceps Peters, Mon. Berl. Ac. 1854, p. 623, and Reise Mossamb. iii. p. 111, pl. xviii. fig. 1.

Aparallactus nigriceps Bouleng. t. c. p. 260.

Mozambique and Nyassaland.

9. APARALLACTUS PUNCTATOLINEATUS Bouleng. Ann. & Mag. N. H. (6) xvi. 1895, p. 173, and Cat. Sn. iii. p. 261.

Nyassaland, Angola.

C. Proteroglypha.

(Loreal absent in all the genera.)

- | | |
|---|----------------------|
| I. Tail compressed; no distinct ventrals (Marine) | <i>Hydrus.</i> |
| II. Tail not compressed; ventrals large. | |
| A. Head short; snout broader than long; body cylindrical; subcaudals less than 80. | |
| Scales not at all oblique; ventrals 192-193; subcaudals 67-78 | <i>Boulengerina.</i> |
| Scales more or less oblique, sometimes very slightly; ventrals 141-172; subcaudals 13-25 | <i>Elapechis.</i> |
| Scales oblique; ventrals 180-228; subcaudals 50-72 | <i>Naia.</i> |
| B. Head long, narrow; snout not broader than long; body slightly compressed; scales very oblique; ventrals 202-270; subcaudals 97-121 | <i>Dendraspis.</i> |

1. HYDRUS.

Schneid. Hist. Amph. i. p. 233 ; Bouleng. Cat. Sn. iii. p. 266.

1. HYDRUS PLATURUS.

Anguis platura Linn. S. N. i. p. 391.

Hydrus platurus Bouleng. t. c. p. 267.

Indian and Pacific Oceans.

2. BOULENGERINA.

Dollo, Bull. Mus. Belg. iv. 1886, p. 159 ; Bouleng. Cat. Sn. iii. p. 357.

1. BOULENGERINA STORMSI Dollo, l. c. ; Bouleng. l. c.

Lake Tanganyika.

3. ELAPECHIS.

Bouleng. Cat. Sn. iii. p. 358.

Synopsis of the Species.

Scales in 13 rows ; internasals much shorter than the præfrontals..	<i>E. guentheri.</i>
Scales in 13 rows ; internasals three fourths the length of the præfrontals	<i>E. niger.</i>
Scales in 15 rows ; internasals hardly half as long as the præfrontals	<i>E. boulengeri.</i>

1. ELAPECHIS GUENTHERI.

Elapsoidea guentheri Bocage, Journ. Sc. Lisb. i. 1866, p. 70, pl. i. fig. 3.

Elapechis guentheri Bouleng. t. c. p. 359.

Tropical Africa, from the Gaboon and Uganda to Angola and Nyassaland.

2. ELAPECHIS NIGER.

Elapsoidea nigra Günth. Ann. & Mag. N. H. (6) i. 1888, p. 332.

Elapechis niger Bouleng. l. c. pl. xx. fig. 1.

East Africa, Congo, N. Rhodesia.

3. ELAPECHIS BOULENGERI.

Elapsoidea boulengeri Boettg. Zool. Anz. 1895, p. 62.

Elapechis boulengeri Bouleng. t. c. p. 361.

Zambesi.

4. NAIJA.

Laur. Syn. Rept. p. 90 ; Bouleng. Cat. Sn. iii. p. 372.

Synopsis of the Species.

Sixth (rarely seventh) upper labial largest and deepest ; eye separated from the upper labials by suboculars ; a single anterior temporal	<i>N. haie.</i>
Sixth upper labial largest and deepest, in contact with lower postocular, third and fourth entering the eye ; a single anterior temporal	<i>N. melanoleuca.</i>
Third upper labial deepest, sixth not in contact with postocular, third or third and fourth entering the eye ; 2 or 3 superposed anterior temporals	<i>N. nigricollis.</i>

1. NAIA HAIE.

Coluber haie Linn. in Hasselq. Reise Palest. p. 366.

Naia haie Bouleng. t. c. p. 374.

Borders of the Sahara, East Africa southwards to the Transvaal and Zululand; Palestine, Arabia.

2. NAIA MELANOLEUCA.

Naia haie, var. *melanoleuca* Hallow. Proc. Ac. Philad. 1857, pp. 61 & 72.

Naia melanoleuca Bouleng. t. c. p. 376.

Tropical Africa, from Uganda and the Gold Coast to Nyassaland and Angola.

3. NAIA NIGRICOLLIS Reinh. Vid. Selsk. Skrift. x. 1843, p. 269, pl. iii. figs. 5-7; Bouleng. t. c. p. 387. 378

Senegambia and Upper Egypt to Bechuanaland and Natal.

5. DENDRASPIS.

Schleg. Versl. Zool. Gen. Amsterd. 1848; Bouleng. Cat. Sn. iii. p. 434.

Synopsis of the Species.

A large upper temporal, in contact with the whole outer border of the parietal; scales in 15 to 19 rows	<i>D. jamesonii</i> .
Two upper temporals, in contact with the outer border of the parietal, the second separated from its fellow on the other side by 3 or more scales or shields; scales in 19 to 23 rows ...	<i>D. angusticeps</i> .
Two upper temporals, in contact with the outer border of the parietal, the second separated from its fellow on the other side by a single shield; scales in 19 rows.....	<i>D. sjoestedti</i> .

1. DENDRASPIS JAMESONII.

Elaps jamesonii Traill, in Schleg. Phys. Serp., Engl. Transl. p. 179, pl. ii. figs. 19 & 20.

Dendraspis jamesonii Bouleng. t. c. p. 436.

Tropical Africa, from Uganda and Nigeria to the Congo and Angola.

2. DENDRASPIS ANGUSTICEPS.

Naia angusticeps A. Smith, Ill. Zool. S. Afr., Rept. pl. lxx.

Dendraspis angusticeps Bouleng. t. c. p. 437.

East and Central Africa, Angola, South Africa.

3. DENDRASPIS SJOESTEDTI Lönnb. Wiss. Ergebn. Exped. Kilimandj.-Meru, Rept. p. 17.

British East Africa.

Perhaps based on an aberrant specimen of the preceding species.

Family VIPERIDÆ.

Synopsis of the Genera.

- I. Eye moderate or large, separated from the upper labials by suboculars; ventrals less than 180.
- Upper surface of head covered with large symmetrical shields; pupil round *Causus.*
- Upper surface of head covered with scales; nasal in contact with rostral or separated by a single (naso-rostral) shield; pupil vertical; subcaudals in two rows *Vipera.*
- Upper surface of head covered with scales; nasal separated from the rostral by small scales; pupil vertical; subcaudals in two rows. *Bitis.*
- Upper surface of head covered with scales; pupil vertical; subcaudals single; tail prehensile *Atheris.*
- II. Eye minute, with round pupil; upper surface of head covered with large symmetrical shields; no loreal; a small præocular usually present; ventrals 178-356 *Atractaspis.*

I. CAUSUS.

Wagl. Syst. Amph. p. 172; Bouleng. Cat. Sn. iii, p. 465.

Synopsis of the Species.

- I. Scales in 17 rows or more; subcaudals all or greater part in two rows.
- Snout obtuse, moderately prominent; ventrals 120-155 *C. rhombeatus.*
- Snout prominent, often more or less distinctly turned up at the end; scales in 19 to 22 rows; ventrals 134-152 *C. resimus.*
- Snout prominent, more or less turned up at the end; scales in 17 rows; ventrals 110-125 *C. defilippii.*
- II. Scales in 15 rows; subcaudals single *C. lichtensteinii.*

1. CAUSUS RHOMBEATUS.

Sepedon rhombeatus Licht. Verz. Doubl. Mus. Berl. p. 106.

Causus rhombeatus Bouleng. t. c. p. 467.

Tropical and South Africa.

2. CAUSUS RESIMUS.

Heterophis resimus Peters, Mon. Berl. Ac. 1862, p. 277, pl. —, fig. 4.

Causus resimus Bouleng. t. c. p. 468.

East and Central Africa, Angola.

3. CAUSUS DEFILIPPIL.

Heterodon defilippii Jan, Arch. Zool. Anat. Phys. ii. 1862, p. 225.

Causus defilippii Bouleng. t. c. p. 469.

East and Central Africa, S. Rhodesia, Transvaal.

4. CAUSUS LICHTENSTEINII.

Aspidelaps lichtensteinii Jan, Rev. et Mag. Zool. 1859, p. 511.

Causus lichtensteinii Bouleng. t. c. p. 470.

Tropical Africa, from the Gold Coast and Uganda to the Congo.

2. VIPERA.

Laur. Syn. Rept. p. 99 ; Bouleng. Cat. Sn. iii. p. 471.

Two species :—

No supraocular ; anterior nasal separated from the rostral by a naso-rostral	<i>V. hindii.</i>
A large supraocular ; anterior nasal in contact with the rostral...	<i>V. superciliaris.</i>

1. VIPERA HINDII Bouleng. Ann. & Mag. N. H. (8) v. 1910, p. 513.

Kenya district, East Africa.

2. VIPERA SUPERCILIARIS Peters, Mon. Berl. Ac. 1854, p. 625, and Reise Mossamb. iii. p. 144, pl. xxi. ; Bouleng. Cat. Sn. iii. p. 491.

German East Africa at Cape Delgado.

3. BITIS.

Gray, Zool. Miscell. p. 69 ; Bouleng. Cat. Sn. iii. p. 492.

Synopsis of the Species.

One or two series of scales between the nasal and the rostral ; nostrils directed upwards	<i>B. arietans.</i>
4 or 5 series of scales between the nasal and the rostral ; a single enlarged, sometimes horn-like scale above the internasal, in contact with its fellow	<i>B. gabonica.</i>
4 or 5 series of scales between the nasal and the rostral ; 2 or 3 enlarged, horn-like scales above the internasal, usually with small scales between them and their fellows	<i>B. nasicornis.</i>

1. BITIS ARIETANS.

Vipera arietans Merr. Tent. p. 152.

Bitis arietans Bouleng. t. c. p. 493.

Tropical and South Africa ; Southern Arabia.

2. BITIS GABONICA.

Echidna gabonica Dum. & Bibr. Erp. Gén. vii. p. 1428, pl. lxxx. b.

Bitis gabonica Bouleng. t. c. p. 499.

Tropical Africa.

3. BITIS NASICORNIS.

Coluber nasicornis Shaw, Nat. Miscell. iii. pl. xciv.

Bitis nasicornis Bouleng. t. c. p. 500.

Tropical Africa.

4. ATHERIS.

Cope, Proc. Ac. Philad. 1862, p. 337; Bouleng. Cat. Sn. iii. p. 508.

Synopsis of the Species.

No horn-like superciliary scales; scales in 15 to 25 rows; gular scales strongly keeled *A. squamiger.*
 No horn-like superciliary scales; scales in 25 to 32 rows; gular scales smooth or very feebly keeled *A. nitschei.*
 Several erect, horn-like superciliary scales; scales in 25 rows ... *A. ceratophorus.*

I. ATHERIS SQUAMIGER.

Echis squamigera Hallow. Proc. Ac. Philad. 1854, p. 193.

Atheris squamiger Bouleng. t. c. p. 509.

Uganda, Central Africa, West Africa from Calabar to Angola.

2. ATHERIS NITSCHERI Tornier, Zool. Jahrb., Syst. xv. 1902, p. 589, fig.

Atheris woosnami Bouleng. Ann. & Mag. N. H. (7) xviii. 1906, p. 37, and Tr. Zool. Soc. xix. 1909, p. 246, pl. ix.

N.W. and E. of Lake Tanganyika, and Mt. Ruwenzori.

3. ATHERIS CERATOPHORUS Werner, Verh. Zool.-bot. Ges. Wien, xlv. 1895, p. 194, pl. v. fig. 1; Bouleng. Cat. Sn. iii. p. 510.

German East Africa and Togoland.

5. ATRACTASPIS.

A. Smith, Ill. Zool. S. Afr., Rept.; Bouleng. Cat. Sn. iii. p. 510.

Synopsis of the Species.

I. Anal divided; all or most of the subcaudals paired; scales in 23 to 27 rows.
 Snout rounded; one postocular; third lower labial largest *A. irregularis.*
 Snout pointed; one postocular; third lower labial largest *A. couvradi.*
 Snout rounded; two postoculars; fourth or fifth lower labial largest *A. bipostocularis.*

II. Anal entire; all or most of the subcaudals single.

A. Postocular in contact with a large temporal.

Snout cuneiform; first lower labial in contact with its fellow behind the symphyisial; scales in 23 rows; ventrals 227-248 *A. rostrata.*
 Snout rounded; first lower labial in contact with its fellow behind the symphyisial; scales in 19 or 21 rows; ventrals 251-300 *A. aterrima.*
 Snout rounded; symphyisial in contact with the chin-shields; scales in 25 rows; ventrals 242 *A. katange.*

B. Temporals small, 2 or 3 superposed in front; snout sub-cuneiform; scales in 29 to 37 rows; ventrals 212-245. *A. microlepidota.*

1. ATRACTASPIS IRREGULARIS.

Elaps irregularis Reinh. Vid. Selsk. Skrift. x. 1843, p. 264,
pl. iii. figs. 1-3.

Atractaspis irregularis Bouleng. t. c. p. 513.

From the Gold Coast and Uganda to the Congo.

2. ATRACTASPIS CONRADSI Sternf. Sitzb. Ges. Nat. Fr. Berl.
1908, p. 94.

Uganda and German East Africa.

3. ATRACTASPIS BIPOSTOCULARIS Bouleng. Ann. & Mag. N. H.
(7) xv. 1905, p. 190.

Mount Kenya.

4. ATRACTASPIS ROSTRATA Günth. Ann. & Mag. N. H. (4) i.
1868, p. 429, pl. xix. fig. i.; Bouleng. Cat. Sn. iii. p. 514.

East Africa and Nyassaland.

5. ATRACTASPIS ATERRIMA Günth. Ann. & Mag. N. H. (3) xii.
1863, p. 363; Bouleng. t. c. p. 515.

Uganda and West Africa, from the Gold Coast to the Niger.

6. ATRACTASPIS KATANGÆ Bouleng. Ann. Mus. Congo. Zool. ii.
1901, p. 13, pl. v. fig. 2; Sternf. Mitth. Zool. Mus. Berl. v. 1911.
p. 385.

Katanga and German East Africa.

7. ATRACTASPIS MICROLEPIDOTA Günth. Ann. & Mag. N. H.
(3) xviii. 1866, p. 29, pl. vii.; Bouleng. Cat. Sn. iii. p. 517.

East and Central Africa.